

Remark

Applicants respectfully request reconsideration of this application as amended. No claims have been amended. No claims have been canceled. Therefore, claims 1-23 are now presented for examination.

35 U.S.C. §102 Rejection

Fukuda

The Examiner has rejected claims 1-5, 8-10, 13-15 and 18-21 under 35 U.S.C. §102(e) as being anticipated over Fukuda, U.S. Patent Publication No. 2005/0172332 (Fukuda"). The Examiner confidently maintains that a prima facie case of anticipation has been made against Claim 1 using only Fukuda. Anticipation, of course, requires that the reference show each and every limitation in the claims. The rejection of Claim 1 is fairly detailed but will be discussed below.

The Examiner has maintained the rejection of the first paragraph of Claim 1 as follows:

"a tuner [102, 201] to receive modulated video signals, the tuner having an external control interface [203] to receive commands in a first protocol [i.e. isochronous transfer or AV/C protocol defined in para. 57] specific to the tuner [102] at the external control interface [para. 56]."

Paragraphs 56 and 57 refer to "the first communication protocol" as one using isochronous transfer and mention AV/C (audio video/control, IEC61883) as an example. As noted by the Examiner, "a 1394 interface 203 converts the content supplied from the tuner unit 201, into stream data according to a first communications protocol and

executes a real-time transfer of the stream data to a desired device.” This portion of para. 56 is describing how the video gets from the tuner 203 to the DTV 101.

There is nothing in the cited section to suggest that commands are received at this 1394 interface in the AV/C protocol. In addition, it does not appear that the AV/C protocol is specific to the tuner.

The Examiner rejects the next paragraph of Claim 1 as follows:

“a graphics controller [230] to generate commands in a second generalized protocol [i.e. asynchronous transfer or serial bus connection protocol defined in para. 58 and the operation of para. 79].”

The “second communications protocol” uses asynchronous transfer. No specific reference is made to a standard. Paragraph 79 appears to suggest that remote control inputs are received and transferred to this second protocol by the control unit 330. The control unit 330 then transfers the input “to a device corresponding to such remote control panel.”

The Examiner rejects the final paragraph of Claim 1 as follows:

“a microcontroller [204 (control unit of the tuner)] coupled to the graphics controller [230] and to the tuner [201] to receive the commands from the graphics controller in the second protocol, to convert the commands from the second protocol to the first protocol [i.e. upon request from remote control interface 228 (of DTV) to send command to control unit 203 of digital receiver 101 in the second protocol; the Digital receiver 101 sets the isochronous connection with tuner 102 in the first protocol, para. 109; the control unit 204 of the tuner 102 executes isochronous transfer of the content selected by the Digital receiver 101, utilizing another isochronous channel, para. 110]...”

Here the Examiner is referring in paragraphs 109 and 110 to a process for changing channels on the tuner (isochronous connection, first protocol). The reference simply states that the DTV sets another isochronous connection with the tuner. At paragraph 79 (also referred to by the Examiner), “the control unit 230 [of the DTV] also asynchronous transfers the operation input, executed on the remote control panel to a device corresponding to such remote control panel.”

So the DTV receives an operation input from the remote, this is “transferred” to the tuner in the second protocol and then a new first protocol connection is set between tuner and DTV. No further detail is provided.

Looking at Claim 1, it recites “a microcontroller... to convert the commands from the second protocol to the first protocol.” There is no explicit teaching of any such conversion in Fukuda. Instead, an operation input in the second protocol is sent and then the isochronous connection is set. It would seem that the tuner executes the second protocol operation, rather than converting it to something else. The isochronous connection is not an operation input, it provides the desired channel video and audio.

The final clause of Claim 1 is rejected as follows:

“and to transmit the converted commands to the tuner [201] through the external control interface [203] of the tuner [102] [citing paras. 70, 77-79, 110].”

The cited sections here add nothing to those cited above against this paragraph of the claim. The Examiner would appear to be suggesting that after the command is converted to the first protocol it is sent to the tuner unit 201 through the 1394 interface 203. This is inconsistent with the application of the previous clause of the paragraph. The Examiner has already asserted that the control unit 204 of the tuner converts commands from one protocol to the other. Now the Examiner asserts that this converted

command is sent to the tuner through the 1394 interface 203 rather than directly from the control unit 205 to the tuner unit 201.

The Examiner has been inconsistent as to whether the tuner is Tuner 102 which includes Control Unit 204, or Tuner Unit 201 inside Tuner 102. This matters because the Control Unit 204 will not send commands to the Tuner 102 but only to the Tuner Unit 201. Claim 1 states first that “the microcontroller is coupled to the graphics controller and to the tuner.” This tuner can only be the Tuner 102, because otherwise the microcontroller is a part of the thing to which it is coupled.. However, Claim 1 also states that the microcontroller is to “transmit the converted commands to the tuner through the external control interface of the tuner.” This must be the Tuner Unit 201, because otherwise the microprocessor is transmitting commands to itself. Such an approach requires two different inconsistent interpretations of the claim.

The Examiner’s two-pronged approach to the tuner creates another problem of interpretation and that is that

However, the most significant shortcomings in the Examiner’s case for anticipation is that it relies on teachings which are not in the reference. Fukuda never states that operation inputs from the remote control are transferred to the Control Unit of the Tuner, as compared to another part of the Tuner. Fukuda never states that the operation inputs in the second protocol are converted into operation inputs of the first protocol as compared to being acted on directly. Finally, Fukuda never states that commands are sent from the Tuner Control Unit to the Tuner or the Tuner Unit through the 1394 Interface of the Tuner. This is highly unlikely since the two components appear to be directly connected.

For these reasons, *inter alia*, all of the claims are believed to be allowable over the references.

35 U.S.C. §103 Rejection

Fukuda

The Examiner has rejected claims 6, 11, 16 and 22 under 35 U.S.C. §103(a) as being unpatentable over Fukuda. This rejection relies on the anticipation discussed above.

Response to Arguments

The Examiner makes some replies in this section of the Final Rejection.

First, “the remote control panel is indeed sent from the tuner unit through the 1394 interface using the second protocol.” Be that as it may, Claim 1 does not feature anything being sent from the tuner but to the tuner. In addition, the control panel is not indicated as having been converted from the first protocol.

Second, “these are converted to not only remote control panels but also A/V data stream as taught by Fukuda.” The remote control panels would appear to be in the second protocol just like the transfer of operations from the Control Unit 230. As for the A/V data stream, this is converted not from the second protocol but from an A/V content format (paras. 54, 56). Claim 1 refers to commands being converted.

Third, “applicant confuses a tuner device 102 with a tuner unit 201 as is clarified by the Examiner.” Here, again the first communications protocol, AV/C, stream is converted from media content files. Fukuda does not indicate what commands are being sent in the C part of AV/C. The second protocol is not converted. The confusion arises

because the claims describe things as being received by the tuner and the Examiner cites things that are generated inside that same tuner.

35 U.S.C. §103 Rejection

Fukuda and Young

The Examiner has rejected claims 7, 12, 17 and 23 under 35 U.S.C. §103(a) as being unpatentable over Fukuda and in further view of Young, U.S. Publication No. 2003/0194968 (“Young”).

Conclusion

Applicants respectfully submit that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Request for an Extension of Time

Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Gordon R. Lindeen III

Reg. No. 33,192

1279 Oakmead Parkway
Sunnyvale, California 94085-4040
(303) 740-1980